7. FINANCIAL EDI

There has been a growing trend among private and public sector organizations to complete the electronic business loop by converting their payment and collection systems to financial EDI.

Financial EDI is defined as:

> *"The electronic transmission of funds and related data through the banking system, using standard formats."*

This section provides an overview of electronic funds transfer and financial EDI, Financial Management Service (FMS) financial EDI initiatives, and guidance for implementing financial EDI applications.

7.1. ELECTRONIC FUNDS TRANSFER

Electronic Funds Transfer (EFT) has been used in the public and private sector for many years to transfer funds between organizations, with their financial institutions serving as intermediaries. There are five primary parties involved in an EFT transaction, as described below:

- **Originator:** The originator is the person or the organization that requests or authorizes the transfer of funds via EFT. Originators authorize their financial institutions to transmit credit or debit entries to the deposit account of the receiver. An example of an originator of an EFT transaction is an organization that initiates payments to a vendor against invoices received.

- **Originating Depository Financial Institution (ODFI):** The originator's designated financial institution is known as the ODFI in an EFT transaction. In the above example, the organization's bank would be the ODFI. FMS's Regional Financial Centers serve as the ODFI for Federal agencies that make payments through the Department of the Treasury.

- **Automated Clearing House (ACH)Operator:** The Automated Clearing House (ACH) is a nationwide electronic funds transfer system used by financial institutions, corporations, and consumers. It serves as a central distribution and settlement point for wire transfers and other electronic items exchanged between financial institutions. The ACH has several regional clearing houses that serve member banks and financial institutions in their respective regions. The National Automated Clearing House Association (NACHA) is the regulatory body for the entire ACH system. The Federal Reserve functions as the ACH operator for the U.S. Treasury.
- **Receiving Depository Financial Institution (RDFI):** The receiver's designated financial institution is known as the RDFI in an EFT transaction. In the above example, the vendor's bank is the RDFI.

- **Receiver:** The receiver is the person or organization that has authorized an originator to initiate a credit or debit entry, via EFT, to their deposit account. An example of a receiver is a vendor who receives EFT payments into his bank account against invoices sent to a Federal agency

The two options for transferring funds electronically are wire transfer and Automated Clearing House (ACH). These options are described below:

- **Wire Transfer:** Wire transfer is an electronic payment mechanism that allows quick (same day) funds transfer for corporations and individuals. It is an online, real time, payment system designed primarily to handle large-dollar, time critical, non-repetitive payments or account transfers. This option is designed to move funds and only very limited accompanying information. International and domestic networks offering wire transfer services include CHIPS (Clearing House Inter-bank Payments System) offered by the New York Clearing House Association, and FEDWIRE, provided by the Federal Reserve system.

- **Automated Clearing House (ACH) Funds Transfer:** ACH funds transfer is a next-day funds settlement system originally designed to handle low-dollar repetitive payments, electronically on a batch basis. ACH funds transfer can accommodate the movement of both funds and information and has become recognized as the most appropriate payment mechanism for financial EDI. Exhibit 7-1, Electronic Funds Transfer, presents a pictorial overview of the manner in which funds are transferred using the ACH funds transfer option.

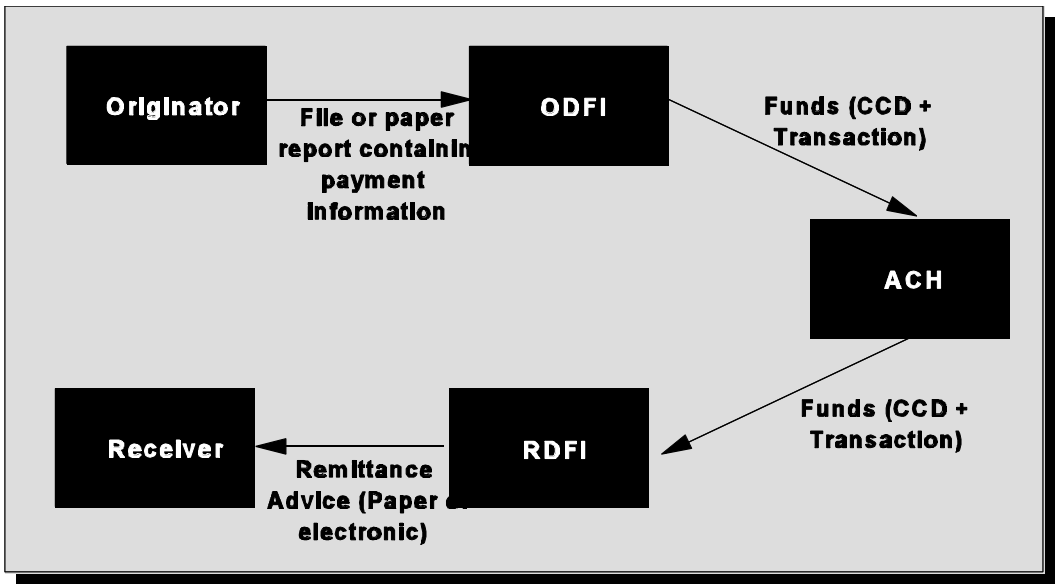

Exhibit 7-1: Electronic Funds Transfer

NACHA maintains and operates an automated network for the transfer of funds and related data. There are a number of formats that can be used to transmit payment transactions over the ACH network, including the following:

- ADV Automated Accounting Advice
- CCD Cash Concentration and Disbursement
- CIE Customer Initiated Entry
- COR Automated Notification of Change and Automated Refused Notification of Change
- CTX Corporate Trade Exchange
- DNE Death Notification Entry
- ENR Automated Enrollment Entry
- MTE Machine Transfer Entry
- POS Point of Sale Entry
- PPD Prearranged Payment and Deposit Entry
- RET Automated Return Entry
- SHR Shared Network Transaction
- TRC Truncated Entry
- TRX Truncated Entries Exchange
- XCK Destroyed Check Entry

As this section deals with payments to and collections from commercial entities, only a small subset of the above transactions have been referred to in subsequent subsections. A more detailed description of the relevant transactions is presented below.

- **Cash Concentration or Disbursement (CCD):** The CCD is a credit or debit entry initiated to consolidate or disburse funds and for inter-corporate payments that require minimal descriptive information.

- **Cash Concentration or Disbursement With Addenda (CCD+):** The CCD+ is a CCD payment with a single addendum record of 80 characters. This addendum record is used to communicate payment related information, such as invoice number.

- **Corporate Trade Exchange (CTX):** The CTX is a relatively new format, and is a debit or credit entry initiated by an organization to effect the transfer of funds to or from the deposit account of that organization or another organization. The transfer of funds may be accompanied by up to 9,999 addenda records that relay information formatted in accordance with ANSI ASC X12.5 and X12.6 syntax, an ANSI ASC X12 transaction set containing a BPR or BPS data segment (such as the 820, Payment Order/Remittance Advice), or payment related UN/EDIFACT syntax.

Initially, only the CCD and the CCD+ transactions were used to effect the transfer of funds electronically. But, over a period of time, as EFT usage became more prevalent, organizations found that they were severely limited by the amount of payment information that they were able to attach to the actual payment itself. Many of these organizations began to send payment information separately, by mail or fax, to their payees. This practice, however, resulted in two primary problems - payments could not be processed for several days by the payee until the remittance information reached them and a great deal of manual effort was required to reconcile payments and associated data. Therefore, financial EDI evolved as a solution to these problems.

7.2. FINANCIAL EDI MODELS

As stated earlier, financial EDI transactions involve two components - the transfer of funds and the transfer of related remittance data. There are two models of financial EDI - one where the payment and remittance information are transmitted separately, and another where the two are transmitted together. These two models are described in further detail below.

7.2.1 MODEL 1 - DOLLARS AND DATA SEPARATE

In this financial EDI model, the payor transmits funds through the banking system and the ACH network and sends payment information separately to the payee in an ANSI ASC X12 820, Remittance Advice, transaction set, via a Value Added Network (VAN). The Originator of the payment usually places a key piece of information in the addendum record of the ACH transaction which enables the Receiver to match the payment to its corresponding EDI payment information transaction set. Exhibit 7-2, Dollars and Data Separate, presents a graphical representation of this financial EDI model.

7.2.2 MODEL 2 - DOLLARS AND DATA TOGETHER

Organizations that implemented the "Dollars and Data Separate" model soon realized that, while the payment information arrived in a timely manner and contained enough information to be able

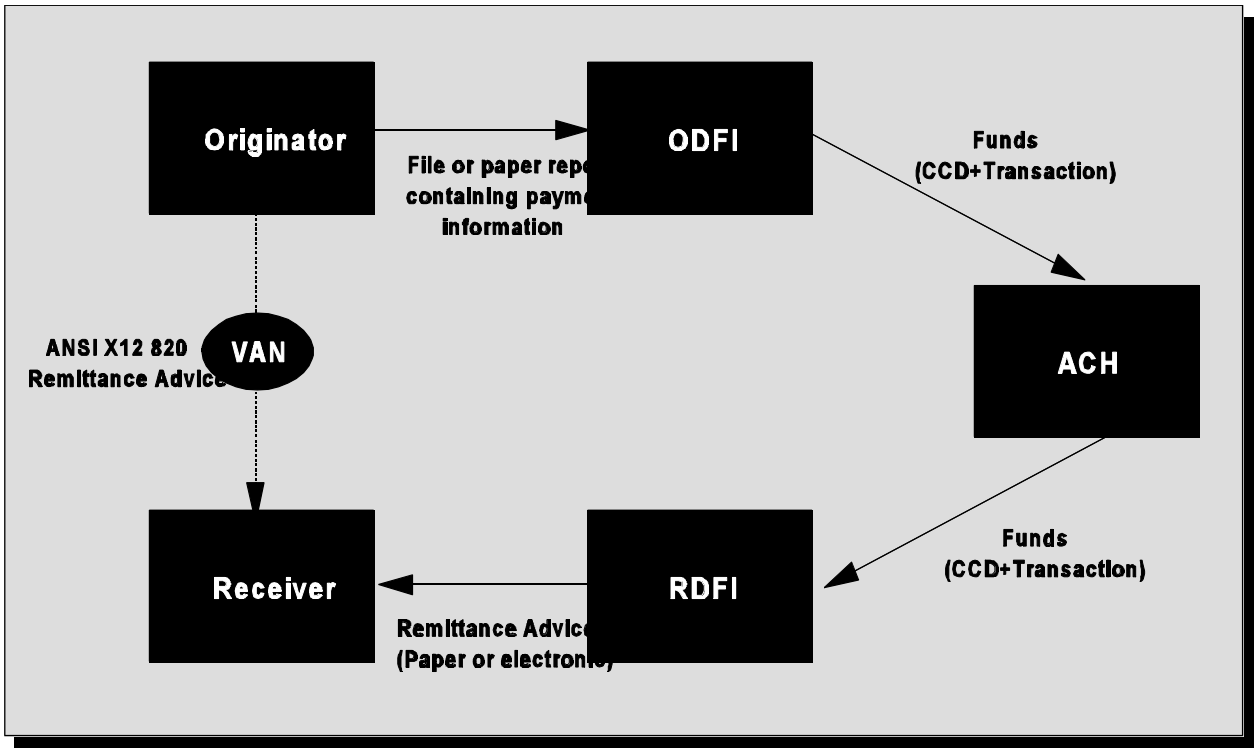

Exhibit 7-2: Model 1 - Dollar and Data Separate

to match it to the payment itself, they still had to make the effort of reconciling the two. This problem gave rise to the second financial EDI model - "Dollars and Data Together". In this

model, the payor sends a payment along with complete payment information through the banking system and the ACH network. To do this, the payor sends an ANSI ASC X12 820, Payment Order/Remittance Advice, transaction set, to their ODFI via a VAN. The ODFI would use this transaction set to create a CTX transaction, and transmit it to the RDFI through the ACH network. The RDFI would receive and process the CTX transaction, credit the account of the payee and forward the remittance advice to the payee, electronically or by paper. Exhibit 7-3, Dollars and Data Together, presents a graphical representation of this model.
While the "Dollars and Data Together" model represents the ideal method of effecting an electronic funds transfer, it should be noted that many financial institutions are currently unable to handle the addenda records that accompany the CTX transaction and pass the information along to the receiver. However, several vendors have recently released software packages that will enable banks to send, receive and process CTX transactions, and with the availability of these packages, more banks will be able to implement the "Dollars and Data Together" model of

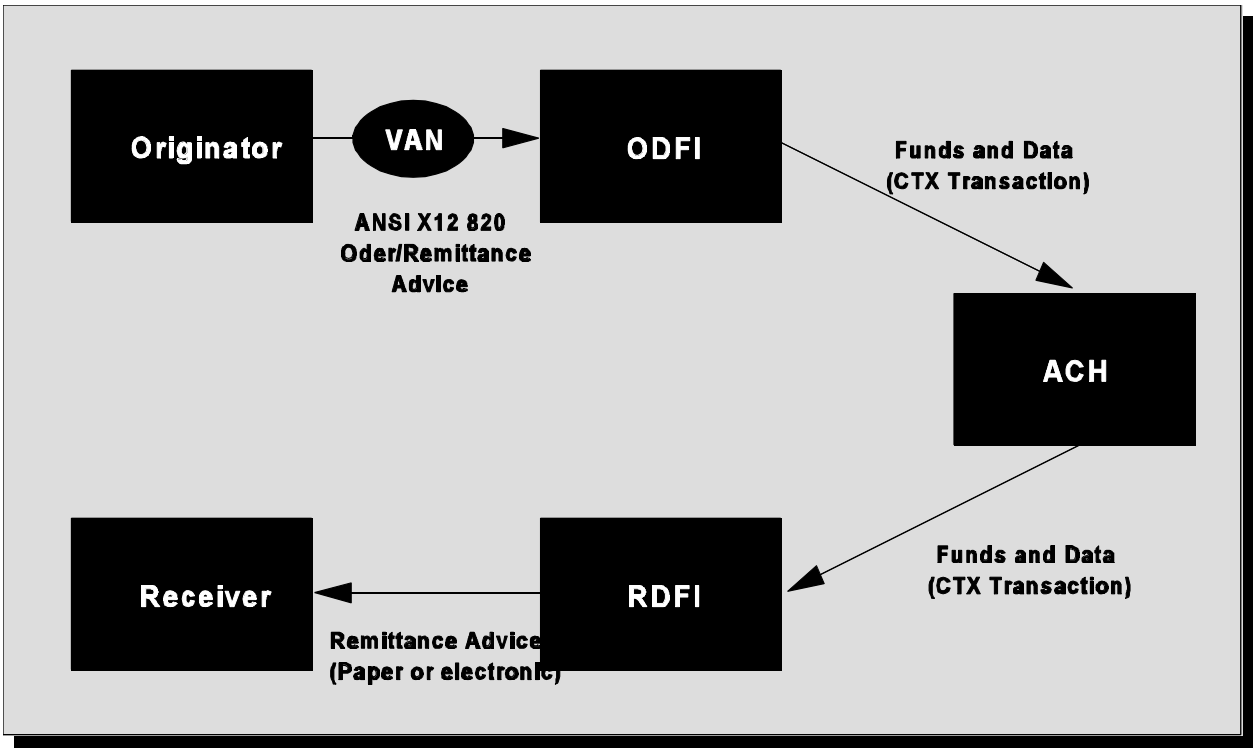

Exhibit 7-3: Model 2 - Dollar and Data Together

financial EDI.

7.3. BENEFITS OF FINANCIAL EDI

An agency or organization has the opportunity to streamline its payment and collection processes by implementing financial EDI. The benefits of using financial EDI are:

- **Reduced Data Entry Costs and Increased Data Accuracy:** If organizations implement financial EDI and send and receive payment data electronically, manual data entry

of remittance advice information will be reduced or eliminated. This will result in a reduction of data entry errors and lower the cost of processing payments and collections.

- **Reduced Costs:** Financial EDI will reduce other costs, such as handling, processing, and mailing, associated with paper checks. The Department of the Treasury, Financial Management Service has estimated that the cost of processing a paper check is approximately 40 - 43 cents, while the cost of an ACH payment is approximately 2 to 2.5 cents.

- **Reduced Document Reproduction and Storage:** Financial EDI will reduce the paperwork involved in payments and collections. For example, by using financial EDI, agencies will no longer be required to produce five (5) part paper SF215 deposit tickets and four (4) part SF 5515 debit vouchers, or store the same for 6 ½ years.

- **Automation of Reconciliation Process:** As payment information is received in an electronic format in financial EDI, organizations will be able to automate the reconciliation of incoming payments and remittance data to open items in their in-house Accounts Receivable application systems.

- **Reduced Prompt Pay Interest Payments and Increased Funds Availability:** Decreased data entry and mail float can reduce interest payments if files are generated and submitted at least one day prior to settlement. Reduced or eliminated mail float coupled with fewer processing steps will give agencies quicker access to funds and better data on funds collected.

As a result of these benefits, organizations that incorporate financial EDI in their payments and collection functions will be able to improve control of their investment income and forecast disbursements more accurately.

7.4. FINANCIAL EDI IN THE FEDERAL GOVERNMENT

The Federal government collects and disburses over $1 trillion annually through 13,000 financial institutions. Multiple collection, payment, and banking systems are currently being used to process agency receipts and payments and capture relevant accompanying data.

In April 1996, the **Debt Collection Improvement Act** was passed by Congress and signed into law by President Clinton. This Act includes a provision for a two-phase implementation of EFT, with Phase One beginning on July 26, 1996. In Phase One, new eligible recipients of Federal payments are required to receive payments by EFT and must provide agencies with the necessary bank account information to effect payments electronically. Phase Two is the all-encompassing implementation of the law, and requires that all Federal payments, with the exception of Internal Revenue Service tax refunds, be made by EFT by January 1999. This law will virtually eliminate the use of paper checks as a payment mechanism by the turn of the century, but will require aggressive implementation programs if agencies are to meet the stated deadlines.

The following sections provide more detailed information on electronic payment and collection mechanisms for Federal agencies, as well as step-by-step approaches for the implementation of these mechanisms.

7.4.1 PAYMENTS

Payments are made by Federal agencies, directly or through the Department of the Treasury, Financial Management Service (FMS), using the following mechanisms:

- Paper checks
- Electronic payments

All payments are certified by an authorized Certifying Officer, typically using the Electronic Certification System (ECS), a PC-based stand alone system developed and distributed by FMS. (A more detailed description of ECS is presented in Section 7.4.1.1, Electronic Payment Products and Systems.) Information may be entered manually into ECS or transferred via a diskette from the agency's financial management system. Agencies may choose to enter complete payment detail into ECS, or send payment details to FMS separately via magnetic tape or by FMSnet. In the first case, ECS will produce a certified detail payment file and transmit it to FMS via a dial-up line. In the second case, the agency will make a summary entry into ECS which references the payment detail file that was sent separately to FMS. ECS will produce a summary schedule certification and transmit it to FMS via a dial-up line. In rare instances, agencies also send paper SF1166s, Payment Schedule and Vouchers, requesting and certifying payments.

If the payment and certification files are sent separately, FMS will match the summary schedule certification to the payment file before issuing the payment. Payments are then issued, according to the preferences of the agency, as paper checks that are mailed to the recipients, or as ACH transactions, that are transmitted to the Federal Reserve Bank via FMSnet. A description of FMSnet is presented in Appendix D, Financial Management Service Network Standards Document. It is important to note that FMS acts as the ODFI in these transactions and the Federal Reserve Bank acts as the ACH operator, serving as the entry point into the ACH system.

Exhibit 7-4, Federal Agency Payment Process, presents a pictorial overview of how payments are made by Federal Agencies.

7.4.1.1. ELECTRONIC PAYMENT PRODUCTS AND SYSTEMS

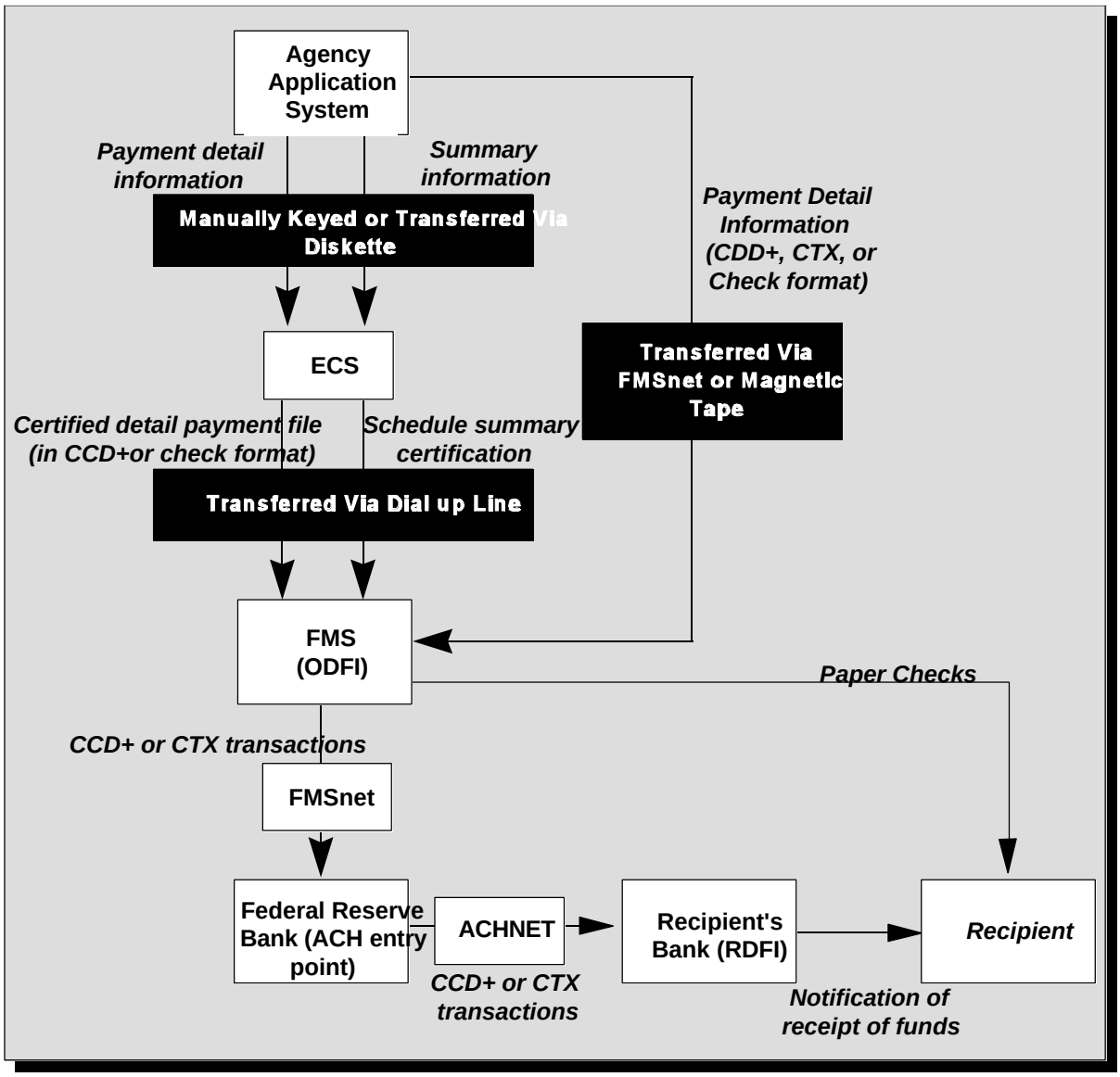

Exhibit 7-4: Federal Agency Payment Process

In an effort to streamline the payment process, FMS has introduced a number of financial EDI products that are designed to decrease the time and cost associated with this function. Presented below are brief descriptions of some of these products.

- **Electronic Certification System (ECS):** ECS is an automated system for voucher preparation, certification, transmission and verification that replaces the manual OCR paper voucher and signature process. ECS uses a microcomputer to generate voucher schedules, electronically certify the vouchers and transmit them via a dial-up telephone line to a mainframe host computer at the agency's servicing Treasury Regional Financial Center.

Agencies can enter either detail or summary payment information into ECS. If detail payment data is entered, ECS will produce a certified detail payment file. If summary information is entered into ECS, then detailed payment information is sent via a separate file to FMS and the summary in ECS contains a reference to the appropriate file. In this case, ECS will produce a summary schedule certification which is transmitted to FMS via a dial up line. It should be noted that ECS can only process payment detail information in CCD+ format at the current time. Agencies that wish to use the CTX payment format should transmit payment detail information separately to FMS and produce a summary schedule certification using ECS.

The primary advantage of ECS is that it allows agencies to create, certify, and send payment data on a timely basis to FMS and reduces delays associated with mailing of paper forms. It provides positive identification of the certifying officer who authorizes the voucher for payment, and ensures the authenticity of the transmitted data. ECS also detects deliberate or inadvertent manipulation, modification, and loss of data between the time the voucher is certified in the Federal Program Agency microcomputer and the time it is verified by the servicing RFC host computer. At the current time, almost all civilian agencies are using ECS to certify payments.

- **Vendor Express:** Vendor Express is a payment program that allows Federal agencies to make electronic payments with accompanying remittance data to companies and individuals who provide goods or services to the government, or receive grants or program funds from the Federal government. Agencies using Vendor Express send payment data to FMS, which converts the payments to ACH transactions and transmits them to the Federal Reserve Bank via FMSnet. The Federal Reserve Bank transmits the payments through the ACH network to the payee's financial institution. Remittance data that is placed in the addenda records of the ACH payment transaction is forwarded to the payee by the payee's financial institution.

  In the past, Vendor Express utilized the CCD+ payment format. However, due to the fact that this format only allows for one addendum record with 80 characters of remittance information, Vendor Express payments were limited to single invoices. Subsequently, Vendor Express has been enhanced to accommodate the CTX payment format, enabling agencies and FMS to send one CTX payment to cover multiple invoices.

  In addition to the methods described in the previous section, FMS can accept payment data as ANSI ASC X12 820, Payment Order/Remittance Advice, transaction set. Payment data is sent to FMS via FMSnet and the certification for the payment is sent using ECS. If an agency is not EDI capable, but desires to issue one payment to cover multiple invoices, it can electronically transmit a flat file, built to the specifications of the 820 transaction set, to FMS. FMS can then use this file to produce a CTX payment transaction.

- **Automated Standard Application for Payments (ASAP):** ASAP is an all-electronic payment and information system aimed at providing a single point of contact for recipients of Federal domestic assistance monies. The recipients of these funds can electronically request

and receive agency pre-authorized funds through the U.S. Treasury. Approved requests for same day payment are paid within minutes via the Federal Reserve's FEDWIRE system, and approved requests for next day payments are paid the next day via the ACH system. ACH payments are made using the CTX format with complete ANSI X12 820 transaction sets embedded in the addenda records of each payment transaction.

7.4.1.2. IMPLEMENTING ELECTRONIC PAYMENT SYSTEMS IN THE FEDERAL GOVERNMENT

There are several differences between implementing non-financial and financial EDI applications. One is the participation of the trading partners' banks as parties to the transactions. ACH operators are also needed to conduct business via financial EDI.

Presented below is a list of steps that agencies must take in order to implement electronic payment systems.

1. **Contact FMS:** The first step that an agency must take when implementing electronic payment systems is to contact the Customer Assistance Staff (CAS) at its servicing Regional Financial Center (RFC). The CAS will assist the agency in selecting and implementing a suitable payment system option. CAS contact information is provided in Appendix C.

2. **Determine Payment Transaction Format:** The agency should then examine its payments and decide whether it will use the CCD+ format, the CTX format, or both, for its payments. This determination should be made taking the following factors into consideration:

   - **Multiple Payments:** If an agency typically issues multiple payments to a single vendor on the same day, it may wish to consolidate the payments and issue a single CTX transaction that covers the multiple payments.

   - **Amount of Remittance Information:** If the amount of data that accompanies the payment is typically more than 80 characters, the agency may choose to issue a CTX transaction that can accommodate larger amounts of data than the CCD+transaction format.

   - **Capabilities of Receivers and RDFIs:** While agencies should utilize the CTX format to the maximum extent possible, it may become necessary to utilize the CCD+ format in cases where receivers and RDFIs are not capable of processing CTX transactions.

3. **Install Electronic Certification System (ECS):** Since the purpose of EDI is to replace manual processes with electronic ones, all payment files should be certified electronically using the ECS system. The agency should therefore, install ECS as a prerequisite to implementing financial EDI and EFT in its payment processes. It should also modify its

financial management systems to enable it transfer payment data, in detail or summary format, to ECS via a diskette.

4. **Determine Method of Data Transfer to FMS:** As mentioned earlier, payment data can be transferred to FMS in the following ways:

   - ➢ Payment detail data and certification can be sent to FMS together via ECS. This can only be done for CCD+ payments.

   - ➢ Payment detail data can be sent to FMS via FMSnet and a summary schedule certification can be sent separately to FMS via ECS. The payment detail data may be formatted as ANSI ASC X12 820, Payment Order/Remittance Advice transaction sets, or as a CCD+ or CTX compatible file. Layouts for these files are available from the FMS CAS. If the agency decides to transmit ANSI ASC X12 820 transaction sets, it will need to acquire and install EDI translation software and interface it with its in house application systems.

5. **Prepare for CTX Payments:** If the agency decides to issue CTX payments, it should complete the following steps:

   - ➢ **Complete EDI/CTX Customer Profile:** The agency must complete and submit an EDI/CTX Customer Profile to the FMS's Austin Financial Center (AFC). This will enable the AFC to begin working with the agency to prepare for financial EDI implementation.

   - ➢ **Consolidate Multiple Invoices to a Vendor in a Single Payment:** The primary advantage of using CTX is that complete remittance advice can be transmitted with a single payment for multiple invoices. To do this, it is necessary that the agency be able to identify all invoices from a particular vendor scheduled to be paid on the same date, and this may necessitate programming changes to the agency's financial system.

6. **Use FMSnet to Transmit Payment Files:** The agency should make arrangements to transmit payment files, if necessary, over FMSnet.

7. **Identify Vendors for Initial Conversion to Electronic Payments:** The agency must select a few vendors or payees with whom it would like to begin implementing EFT. The agency must ensure that these vendors and their banks are proficient in receiving and processing EFT payments. The selected vendors should complete SF 3881, ACH Vendor/Miscellaneous Payment Enrollment Form, and submit it to the agency. This form will provide both parties with banking information necessary to send and receive EFT payments.

8. **Test Electronic Payment Application:** Once an agency has completed steps 1 through 8, it should begin testing its electronic payment application. This process should include dummy transactions (or prenotes) and acceptance tests of the payment transactions with the servicing RFC or the AFC, the vendor's bank, and the vendor.

9. **Implement Electronic Payments Application:** Once the agency has completed testing the new application, it should implement selected vendors. At this point all payments to these vendors should be made electronically, and the use of paper checks should be discontinued.

10. **Launch Trading Partner Outreach Program:** Once the new electronic payment application has been tested and implemented with a few vendors or payees, the agency should develop and launch a trading partner outreach program that will enable it to implement electronic payments with all its payees. It should also contact industry groups and obtain their support and endorsement of the new electronic payment application. A detailed approach to stratifying and implementing trading partners and developing outreach programs is presented in Section 9, Trading Partner Strategy.

7.4.2 COLLECTIONS

The Federal government's revenue is collected through the following organizations and mechanisms:

- Treasury General Accounts (international and domestic)
- Lockboxes*
- Plastic Card Collection Network
- Fedwire Deposit System
- Federal Reserve Bank (FRB) Deposits
- Commodity Credit Corporation (CCC)
- Farmers Home Administration (FmHA)
- Remittance Express*

* EDI capable mechanisms

Each of the above collection methods results in the use of a paper deposit ticket (SF 215) and/or debit voucher (SF 5515) for posting to the Treasury General Account. The Federal Reserve and commercial financial institutions are required to make deposit reports through CA$H-LINK. (A more detailed description of CA$H-LINK is presented in Section 7.4.2.1, Electronic Collection Products and Systems.)

7.4.2.1. ELECTRONIC COLLECTIONS PRODUCTS AND SYSTEMS

In an effort to streamline the collections process, FMS has introduced a number of financial EDI and EFT products that are designed to decrease the time and cost associated with this function. Presented below are brief descriptions of some of these products:

- **CA$H-LINK:** CA$H-LINK is FMS' world wide financial reporting and cash concentration system. Exhibit 7-5, CA$H-LINK Deposit Reporting Process, presents an overview of CA$H-LINK.

The Federal Reserve and commercial institutions are required to make deposit reports through CA$H-LINK. The purpose of CA$H-LINK is to consolidate information from the different collections systems

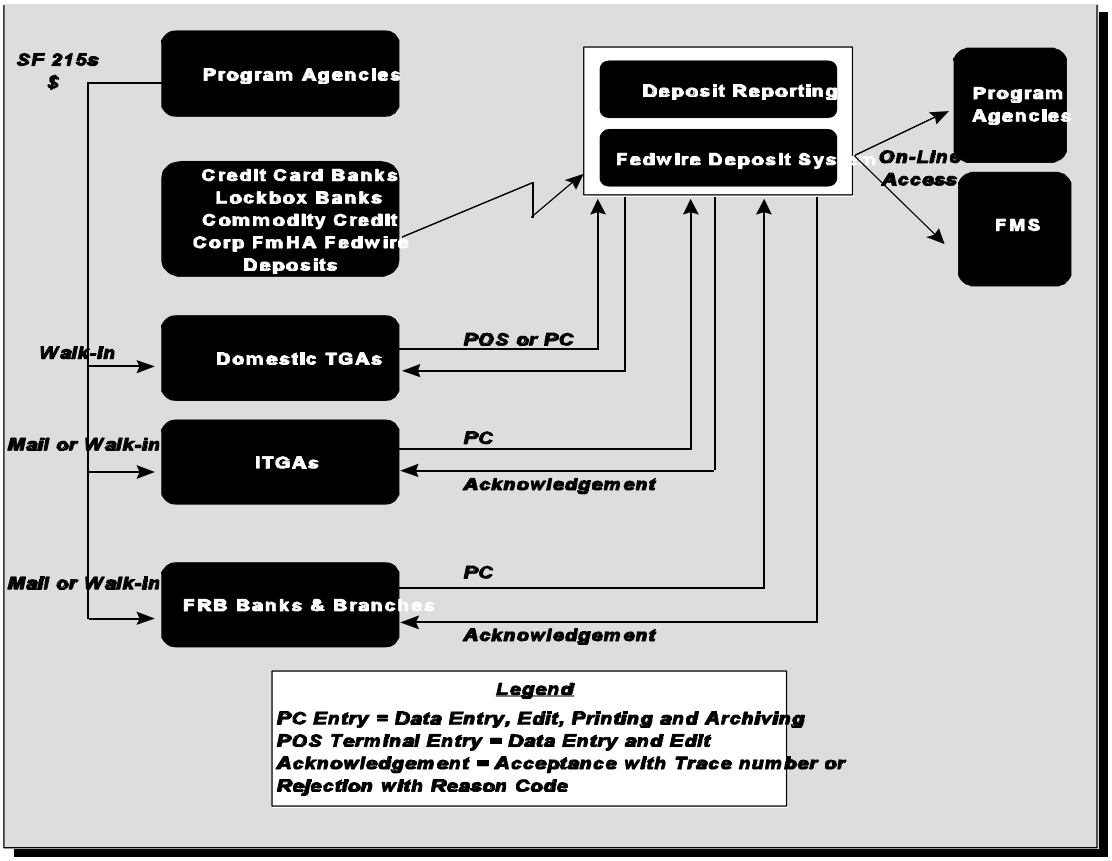

Exhibit 7-5: CA$H-LINK Deposit Reporting Process

and create a single database of deposit details. This database is available to all agencies to assist them in deposit reconciliation and enhance their cash forecasting. CA$H-LINK receives deposit and accounting information from financial institutions, CCC, and FmHA, provides information to initiate funds transfer to Treasury's account at the Federal Reserve Bank New York, and provides detailed accounting information to the government-wide accounting system.

- **Remittance Express (REX):** REX is an electronic funds transfer system that allows Federal agencies to use the ACH network to receive payments from the public. Organizations or individuals making payments to the government can transmit them via the ACH network through their respective financial institutions. The Federal Reserve Bank will receive the payments, and send notification of the receipt of funds and accompanying data to the appropriate agency through FMS's CA$H-LINK financial reporting and cash concentration system.

  REX is designed to accept formats approved by NACHA, and supports the use of both CCD+ or CTX formats, to accommodate the needs of different agencies.

- **Electronic Lockboxes:** An electronic lockbox is a wholesale or retail lockbox that combines paper and electronic remittances. Remitters can make payments through the ACH network, wire transfers, or paper checks. The electronic lockbox operators will automatically collect and deposit all transactions and wire the funds to Treasury's account at the Federal Reserve Bank of New York for credit to the appropriate agency's account. Agencies can obtain deposit information via the CA$H-LINK system.

- **ACH-Only Lockbox Bank:** FMS has selected a financial institution to provide agencies with all types of ACH and EDI services. This ACH-only bank will also provide the following services:

  - **Voice Response System:** The voice response system will allow agencies to initiate debits to remitter's accounts, and remitters to initiate debits to their own accounts for making payments to Federal agencies.

  - **ACHeive:** ACHeive is a personal computer-based software package designed to meet the needs of agencies with small to moderate ACH volumes.

  - **Mainframe to mainframe ACH Transmission:** This service is designed for agencies that process large volumes of ACH transactions.

- **Direct Payment/Recurring Pre-Authorized Debits (PAD):** PAD is an electronic transfer of funds authorized in advance by the remitter. Recurring PADs allow Federal agencies to collect payments automatically on a predetermined date. FMS can either build and maintain remitter databases for participating agencies or provide agencies with software for maintaining their own databases. The agencies will then transmit information to FMS for ACH origination. Agencies can obtain deposit information via the CA$H-LINK system.

7.4.2.2. IMPLEMENTING ELECTRONIC COLLECTION SYSTEMS IN THE FEDERAL GOVERNMENT

Presented below is a list of steps that agencies must take in order to implement electronic collection systems.

1. **Contact FMS:** The first step that an agency must take when implementing electronic collections systems is to contact the Customer Assistance Staff (CAS) at their servicing Regional Financial Center (RFC), or the Product Promotion Division of FMS. The CAS or Product Promotion Division staff will arrange an informational session to educate the agency on financial EDI, EFT, and FMS initiatives, and assist the agency in selecting and implementing a suitable option. A list of RFCs with CAS contact information is provided in Appendix C.

2. **Analyze Collection Process:** The agency, with FMS' assistance, should conduct an analysis of its collections workflows and the entities from which it collects funds. This two level analysis will assist the agency in selecting the most appropriate mechanism and system to utilize in implementing electronic collections applications.

3. **Select Collection Mechanism and Systems:** After the agency has completed the workflow analysis, it should then select a collections mechanism and system that is suited to its needs. Some of the factors that should be taken into consideration in the selection process are listed below:

   - **Initiator of the Transaction:** If the remitter prefers to initiate the transaction to the Federal agency, then a credit-based mechanism such as REX or an electronic lockbox would be desirable. However, if the remitter prefers to have their account debited, then a debit-based mechanism such as PADs should be selected.

   - **Previous Collection Method:** Remitters and agencies that previously used lockboxes to collect paper checks may find it convenient to transition to an electronic lockbox or REX.

   - **Technical Sophistication of Remitters:** The agency should analyze the characteristics of its remitters and select an electronic collection system that would suit

their capabilities. This will assist in a smooth and speedy implementation of the new system.

- ➢ **CTX Capability:** When selecting REX for collections that are accompanied by large amounts of information, the agency should ensure that the remitters are capable of originating CTX transactions.

4. **Prepare for REX Implementation:** If the agency has decided to implement REX, then it should complete the following steps:

   - ➢ **Complete REX Set Up Form:** The agency should complete the REX set up form and submit it to FMS.

   - ➢ **Process REX Form:** FMS will process the information and assign an account number to the agency. FMS will then forward the for to the REX service provider. The service provider will set the agency up in REX and assign a date when "live" transactions can be processed through REX.

   - ➢ **Sign Memorandum of Understanding (MOU):** The agency will then need to sign a MOU with FMS.

   - ➢ **Modify In House Application Systems:** The agency should then make any changes necessary to its in house application systems to enable them to retrieve deposit information from CA$H-LINK.

5. **Prepare for Electronic Lockbox Implementation:** If the agency has decided to implement electronic lockboxes, then it should complete the following steps:

   - ➢ **Develop Statement of Work for Lockbox Services:** Agency and FMS representatives should meet with the lockbox operator and determine implementation procedures for processing EFT collections. A Statement of Work (SOW) should be developed jointly by these parties describing the workflow and processing of these transactions. The SOW should be signed by the agency and the lockbox operator.

   - ➢ **Determine Pricing:** The lockbox operator will then determine the pricing for the services requested in the Statement of Work. This information will be sent to FMS.

   - ➢ **Sign Memorandum of Understanding (MOU):** The agency will then need to sign a MOU with FMS and the lockbox operator.

   - ➢ **Modify In House Application Systems:** The agency should then make any changes necessary to its in house application systems to enable them to retrieve deposit information from CA$H-LINK, or from an electronic file provided by the lockbox operator. In some cases the lock box operator may be able to assist the agency with making the necessary modifications to their systems. Alternately, the lockbox operator

may be able to provide deposit information to the agency in paper report format. Agency staff will then have to be prepared to key in the data into their in house application systems.

6. **Prepare for PAD Implementation:** If the agency has decided to implement PAD, then it should complete the following steps:

   - ➢ **Meet With Agency's ODFI:** Agency and FMS representatives should meet with the agency's ODFI to discuss implementation and procedures to set up a PAD application.

   - ➢ **Sign Memorandum of Understanding (MOU):** The agency will then need to sign a MOU with FMS and a designated lockbox bank.

   - ➢ **Implement PAD Software:** The agency will need to acquire and install software that will enable it to originate PAD transactions.

   - ➢ **Modify In House Application Systems:** The agency should then make any changes necessary to its in house application systems to enable them to retrieve deposit information from CA$H-LINK.

7. **Identify Remitters for Initial Conversion to Electronic Collections:** The agency should then select a few remitters with whom it can implement the new electronic collections application. The agency should ensure that these remitters and their banks can remit EFT payments.

   If the new application is a PAD application, the selected remitters should complete SF5510, Authorization Agreement for Preauthorized Payments. The information from these forms should be entered into the PAD software master file.

8. **Test Electronic Collection Application:** Once the agency has completed steps 1 through 7, it should begin testing its electronic collection application. This process should include zero-dollar prenotifications and acceptance tests of the collection transactions, as necessary, with FMS, remitters, and the remitters' banks.

9. **Conduct Prenotifications:** For PAD applications the agency should conduct prenotifications. If necessary, corrections from the prenotifications should be entered into the PAD software master file.

10. **Implement Electronic Collection Application:** Once the agency has completed testing the new application, it should implement selected remitters. At this point all collections from these remitters should be made electronically, and the use of paper checks should be discontinued.

11. **Launch Trading Partner Outreach Program:** Once the new electronic collection application has been tested and implemented with a few remitters, the agency should develop

and launch a trading partner outreach program that will enable it to implement electronic collections with all remitters. It should also contact industry groups and obtain their support and endorsement of the new electronic collection application. A detailed approach to stratifying and implementing trading partners and developing outreach programs is presented in Section 9, Trading Partner Strategy.

7.5. GOALS, OPAC AND EDIPAC

GOALS is a telecommunications network by which Federal agencies transmit and receive their financial data. OPAC is a component of GOALS which establishes a standardized interagency billing and collection procedure via a telecommunications network.

Recently, OPAC was enhanced to incorporate Electronic Data Interchange (EDI) technology into the OPAC process. This enhancement to OPAC, the Electronic Data Interchange/Payment and Collection (EDIPAC) module, will provide Federal Program Agencies with the capability to transmit detail data along with payment/collection information. The internal structure of OPAC will remain the same as it is today, except that new fields will be added to the database structures to conform with agency-proposed OPAC data requirements.

The enhanced OPAC system will give the user community a unique combination of services. Agencies currently using OPAC will be able to do so without adding EDI capability. Those agencies that are not using OPAC but are using EDI, will be able to now take advantage of the OPAC interface to FMS for the first time. OPAC users who wish to convert to EDI may do so at any time without any loss of OPAC functionality.

The EDIPAC module uses the EDITRAN translator software to perform the following two tasks:

- Accept files in a predefined format from non-EDI-capable agencies through the GOALS Gateway process, convert it into the appropriate ANSI ASC X12 transaction sets (810 or 820), and transmit them to EDI-Capable agencies.

- Accept ANSI ASC X12 transactions as input, and prepare an output file that can be used to update the main OPAC database. Non-EDI-capable agencies can then query the main OPAC database and retrieve reports on transactions that affect them even if they were originated by EDI-capable agencies.

EDIPAC utilizes the following ANSI ASC X12 transaction sets:

- 810 - Invoice/Collection - has both standard business practice functionality and standard OPAC functionality.

- 820 - Payment Remittance Advice - consistent with ECA/PMO conventions

- 812 - Debit/Credit Adjustment - follows OPAC operation setup; i.e., only the receiver of an 810 or 820 can use the 812 to adjust.

- 824 - Application Advice - provides OPAC application advice if transaction is accepted. The 824 is sent to the originator with Date/Time Stamp and reference number. If the original transaction is rejected, the 824 provides rejection codes.

7.6. FEDERAL AGENCY FINANCIAL EDI GROUPS

There are a number of groups that have been established to support Federal agencies in the implementation of EFT and financial EDI programs. These groups include the following:

- **Financial Implementation Team for Electronic Commerce (FITEC):** FITEC was chartered by the Chief Financial Officers' (CFO) Council, and is sponsored by the Office of the Federal Financial Management (OFFM), OMB. The mission of FITEC is to develop plans and policies in the following four Financial Electronic Commerce areas:

  - Communication
  - Planning and Execution
  - Policy and Coordination
  - Training

- **Financial Functional Work Group (FFWG):** The Federal EDI Standards Management Coordinating Committee (FESMCC) chartered the Financial Functional Work Group (FFWG) to provide a focal point for the development of Implementation Conventions for financial EDI transactions sets. The FFWG has over 60 members with representation from approximately 20 agencies. To date, the group has played a role in the development of ICs for the 810, Invoice, and 820, Payment Order/Remittance Advice, transactions sets and is currently working on the 811, Consolidated Service Invoice/Statement.